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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,676	02/28/2002	Iris Ziegler	029310.50932US	2539

23911 7590 03/20/2008
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ART UNIT	PAPER NUMBER
1618	
MAIL DATE	DELIVERY MODE
03/20/2008	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/084,676
Filing Date: February 28, 2002
Appellant(s): ZIEGLER ET AL.

Christopher T. McWhinney
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/12/2007 appealing from the Office action mailed 7/11/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,914,129 MAUSKOP 6-1999

Grant, J. ed. "Hackh's Chemical Dictionary," fourth edition, 1972, right column of page 171

Gennaro, A.R. ed. "Methods of Preparation" Remington's Pharmaceutical Sciences, (1990), pp 1641-1647

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites a compound of tramadol-HCl and diclofenac-sodium. A compound in the chemical sense is defined by the fourth edition of the Hackh's Chemical Dictionary as "substance whose molecules consist of unlike atoms, and whose constituents cannot be separated by physical means." A compound "differs from a physical mixture by reason of the definite proportions of its constituent elements which depend on their atomic weights, by the disappearance of the properties of the constituent elements, and, by entirely new properties

characteristic of the compound." In the instant case the individual compounds, tramadol and diclofenac appear to be present in the claimed compound as identifiable compounds; secondly the formation of the claimed compound does not appear to involve the appearance of a new compound that is separate from the individual tramadol and diclofenac.

Claim 17 is thus examined as mixture of tramadol-HCl and diclofenac-sodium that meets appellants' compound.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Mauskop (US 5,914,129).

Mauskop discloses magnesium containing analgesic oral composition for the treatment/alleviation of pain, and specifically migraine headache pain (abstract). Solid formulations of the composition are capsules, catchets or tablets and powder or granules; liquid formulations are solution or suspension in aqueous liquid or non-aqueous liquid and oil-in-water

or water-in-oil emulsions, and solid formulation of tablet and capsules are preferred with tablet being the most preferred (column 6, lines 12-21). In a particular embodiment of Mauskop, the magnesium containing analgesic composition includes at least two different non-opioid analgesic agents, at least two different opioid analgesic agents or at least one non-opioid analgesic agent and at least one opioid analgesic agent and it is believed that a combination of non-opioid analgesic agents or opioid analgesic agents or a combination of non-opioid and opioid analgesic agents act synergistically to relieve pain (column 3, lines 47-54). In the case where the pharmaceutical composition comprises a combination of a non-opioid analgesic agent and an opioid analgesic agent (claim 6), the non-opioid analgesic agent of ibuprofen, naproxen and diclophenac (diclofenac sodium) are included in the list of non-opioid analgesic agents provided (claims 1-4, 6 and 15) and the opioid analgesic agents of tramadol is included in the list of opioid analgesic agents provided (claims 1, 4, 5, 6 and 17); specifically pharmaceutically acceptable salts such as the hydrochloride salt is employable (column 3, lines 10-14). Mauskop, in column 6, lines 18-31, discloses how the tablet is formulated. Mauskop discloses a combination of opioid analgesic and non-opioid analgesic to synergistically act to relieve pain (column 3, lines 47-54) and tramadol hydrochloride and diclofenac sodium are included in the list provided (column 3, lines 1, 8 and 12). The property of a composition is not separable from the composition and how a composition is made has no patentable weight in a composition/product claim. Instant claim 17 reads on a composition, which is a mixture of diclofenac sodium and tramadol hydrochloride. The comprising language is open.

According to MPEP 2112.01 [R-2], "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable.

Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. And "when the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Furthermore, each of the tramadol hydrochloride and the diclofenac sodium are compounds in themselves. Limitations from the specification cannot be read into the claims, (see In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)). The release of tramadol or diclofenac is a property of the composition or the compound. It is also noted that instant claim 17 does not recite specific amounts of the respective drugs in the composition that distinguishes the instant claim 17 from the disclosed composition of the prior art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mauskop (US 5,914,129).

Mauskop discloses a composition comprising tramadol and diclofenac and a method of preparing the composition. Mauskop in column 6, lines 11-31 discloses forming tablets by conventional method of compression and molding and specifically discloses that molded tablets can be optionally moistened with an inert liquid diluent. The instant method comprises a mixing of tramadol hydrochloride and diclofenac sodium, which the prior art discloses/suggests. The instant method comprises a moistening step which the prior art discloses. Repeating the mixing and moistening steps is an obvious variant of the method at the disposal of the person of ordinary skill in the art or to the skilled artisan whereby the steps are repeated as necessary for the production of the desired tablet. Mauskop does not specifically disclose formulating the mixture under energy input. However, compressing or granulating the mixture requires some form of energy input (see the eighteenth edition of Remington's Pharmaceutical Sciences, 1990, pages 1641- l 647 as a teaching reference in the compression and granulation of pharmaceutical preparations). However, a method of making compositions are disclosed and taught in the eighteenth edition of Remington's Pharmaceutical Sciences. Remington specifically teaches wet-granulation method, fluid-bed granulation method, dry-granulation method, direct compression and related granulation processes (pages 1641-1647). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to formulate

the preparation of Mauskop by mixing and moistening the mixture as disclosed by Mauskop. One having ordinary skill in the art would have been motivated to apply the necessary energy to the mixture with the expectation of producing tablets.

(10) Response to Argument

Appellant's arguments filed 12/12/2007 have been fully considered but they are not persuasive.

The examiner properly rejected claim 17 as indefinite, claim 17 as being anticipated by Mauskop and claim 38 as being obvious over Mauskop and the response below to appellant's arguments supports this position.

Appellant argues: (**with regards to 35 USC 112, 2nd**)

a) that the statute is satisfied if a person skilled in the field of the invention would reasonably understand the claim when read in context of the specification according to the decision in Marley Mouldings Ltd. V. Mikron Industries Inc., 75 USPQ2d 1954 (Fed. Cir. 2006), but in the present case, claim 17 reads on a mixture of Tramadol hydrochloride and diclofenac sodium and appellant specifically asserts that when the Tramadol HCl and Diclofenac sodium are mixed a compound found, thus, claim17 as presented is ambiguous and therefore indefinite.

b) that the Federal circuit has said that 112 demands no more than that the claims reasonably apprise those skilled in the art of the scope of the invention according to the decision in Miles Labs., Inc. V. Shandon, 27 USPQ2d 1123 (Fed. Cir. 1993), but in the instant case, claim 17 is ambiguous and reads on a mixture of the two compounds while appellant asserts the presence of a compound comprised of the two compounds.

c) that MPEP 2173.05(t) states that a claim to a chemical compound is definite without recitation of specific structure and that the Court held in the case of Benger Labs. Ltd. V. R.K Laros Co. that a claim to non-ionic complex of ferric hydroxide with a dextran is definite in the absence of a structure, but the iron-dextran complex is a known compound having CAS 9004-66-4 and a complex of iron-dextran is not ambiguous.

d) that claim 17 is definite being directed to compound of tramadol-HCl and diclofenac sodium, but claim 17 reads on a mixture of compound tramadol-HCl and diclofenac sodium, noting that each of tramadol-HCl and diclofenac sodium is a compound. In the Benger case, it was the disclosure that was objected to as being indefinite and not the claims in a 1963 infringement case.

e) that the compound of the claims can decompose to its constituents just as sodium chloride dissolves in water to give sodium and chloride ions, but in this case, it would appear that sodium chloride may not have been properly compared with tramadol hydrochloride or diclofenac sodium, both of which are compounds or to the tramadol or diclofenac, which are also compounds. When sodium chloride dissolution is compared to the dissolution of either tramadol or diclofenac, it would be clear that tramadol or diclofenac can be made to decompose to its constituent elements under suitable conditions, but when tramadol or diclofenac is made to dissolve in appropriate solvent, the tramadol or diclofenac would not dissolve to release carbon, hydrogen, nitrogen and oxygen and chlorine in the case of diclofenac. It is further noted that the sodium chloride dissolution in water gives rise to sodium ions and chloride ions that are different in properties from the sodium metal and chlorine gas. It does not appear that comparing simple ionic salt to a supposed compound of tramadol hydrochloride and diclofenac sodium is a proper

because tramadol hydrochloride and diclofenac sodium are salts of the compounds tramadol and diclofenac.

f) that the examiner doubts the formation of a compound between the tramadol hydrochloride and diclofenac sodium, but the issue is not in doubting that a compound can be formed from the individual compounds of tramadol hydrochloride and diclofenac sodium, the issue is that the claim reads on a mixture of the two compounds, tramadol hydrochloride and diclofenac and can also read on a compound making the claim ambiguous.

g) that the claim "is directed to a pharmaceutical formulation comprising a compound of tramadol hydrochloride and diclofenac sodium," and as such the meaning of the claim language is "not in any way unclear." Appellant has by this last statement clarified the issue of the clarity of the claim because, tramadol hydrochloride is a compound and diclofenac sodium is also a compound and the formulation comprises a compound of tramadol hydrochloride and diclofenac sodium, which was the interpretation given to the claim for examination.

Appellant has not persuasively shown that the claim language is definite to a compound of the two compounds and excludes a mixture of the two compounds.

Claim 17 is unclear and indefinite because it is open to a mixture and a compound of the compounds.

Appellant argues: **(with respect to art rejection)**

h) that Mauskop does not disclose a compound and merely discloses a mixture of a non-opioid analgesic and an opioid analgesic and that to arrive at the specific mixture, one would have to make selections from a list of 17 possibilities for the non-opioid and 16 possibilities for the opioid. However, a list of 17 or 16 is not an exhaustive list but rather the small list of 17 or

16 specifically names salts of tramadol and diclofenac and specifically states that a combination of any of those listed provides/exerts synergistic effect for relieving pain.

i) that Mauskop describes simple mixtures, but the claims read on simple mixtures and using appellant's specification as a guide or dictionary reveals that appellant prepares the composition by mixing the compounds of tramadol hydrochloride and diclofenac sodium (see paragraphs [0011] and [0032] and example 1) in the same way as Mauskop mixes the compounds of tramadol and diclofenac.

j) that the examiner's reliance on the properties of a chemical composition is misplaced, but the reliance on the properties of the composition was to show that the composition of tramadol and diclofenac would inherently have the water solubility recited in claim 17 and in this wise, the reliance is not misplaced.

k) that the Ziegler declaration shows that the inventive composition is a compound and differs from that produced by the teachings of Mauskop. But, claim 17 is directed to a pharmaceutical composition, which is also supported by appellant's statement on page 6, first full paragraph of the brief. Secondly the composition on page 3 of 10 of the Ziegler declaration is not the same as the claimed generic composition of claim 17 so that the declaration using the composition on page 3 of 10 is not commensurate with claim 17.

m) appellant states that Mauskop does not describe repeating mixing and moistening steps and that the rejection failed "to explain why the skilled artisan would be inclined to repeat the mixing and moistening steps and formulate the mixture under an energy input as in claim 38." The examiner agrees that Mauskop does not describe repeating and moistening steps and that is why the rejection was not one of anticipation. Regarding mixing and moistening steps, it

was stated in the rejection that Mauskop specifically teaches mixing and moistening step. The artisan would have reasonable expectation of success that repeated mixing and moistening of the composition would ensure properly mixed and moist composition. Furthermore, as it regards the input of energy, it is known and was stated in the rejection that compressing or granulating a mixture requires some form of energy input and this is evidenced by the eighteenth edition of Remington's Pharmaceutical Sciences, 1990, pages 1641- l 647 which was used as a teaching reference. Thus in response to appellant's statement that the evidence on record does not suggest that the steps would lead to the compound contemplated by the claims, it is noted that there is a reasonable expectation that repeated mixing and moistening would successfully yield a properly mixed and moistened composition that would be processed into the desired dosage form by techniques known in the art. Regarding the energy input, in addition to the known compressing and granulating processes that require energy input (eighteenth edition of Remington's Pharmaceutical Sciences, 1990, pages 1641- l 647), a source of energy is provided by the shear force applied in the mixing and by light energy when mixing and moistening is carried out under lighted conditions. The process serves the purpose of achieving the contemplated formulation of mixed composition comprising opioid analgesic and non-opioid analgesic for the treatment of pain.

n) appellant says that the declaration evidence should overcome the rejections even if a prima facie case had been made. But, firstly, appellant had not used the Ziegler declaration to argue against the obviousness rejections set forth. Secondly, the composition used in the declaration on page 3 of 10 is not the claimed composition and as such the declaration is not commensurate with the claimed composition. Thirdly, even if the declaration were applied to

the rejections of claim 38, it is noted that the specific steps used in the process of making the declared composition on page 3 of 10 of the declaration is not claimed in the process of claim 38. For example, the mixing lasts for 10 minutes, the mixture extruded, the extrudate was moistened, the pellets are dried at approximately at 50 °C are not recited in the claims. Finally, the a broad energy input is recited and that broad energy input reads on any source of energy including that coming from the environmental light source and from any force employed in mixing.

Therefore, the formulation of Mauskop comprising tramadol-HCl and diclofenac-sodium anticipates claim 17 and the process of Mauskop renders obvious the method of claim 38.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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